

WHAT IS CLAIMED IS:

1. A self-emulsifying ophthalmic solution comprising:
oil globules having an average size of less than 1 micron dispersed in an aqueous phase, said globules comprising:
(a) a surfactant component consisting essentially of one or two surfactants;
(b) a polar oil component, said surfactant component and said oil component selected to self-emulsify when mixed without mechanical homogenization;
and
(c) a chlorite preservative component.
2. The self-emulsifying ophthalmic solution of claim 1, wherein the surfactant component has a hydrophobic portion which comprises a first part oriented proximal to the aqueous phase that is larger than a second part of the hydrophobic portion of the surfactant component oriented towards the interior of the oil globule.
3. The self-emulsifying ophthalmic solution of claim 2, wherein the surfactant component consists essentially of one surfactant with the first part of the hydrophobic portion of the surfactant that contains more atoms than the second part of the hydrophobic portion of the surfactant.
4. The self-emulsifying ophthalmic solution of claim 2, wherein the surfactant component consists essentially of two surfactants, a first of said surfactants comprising a first hydrophobic portion and a second of said surfactants comprising a second hydrophobic portion, said first hydrophobic portion having a longer chain length than the second hydrophobic portion.
5. A self-emulsifying ophthalmic solution according to claim 1, further comprising an additional surfactant that does not interfere with self-emulsification.
6. The self-emulsifying ophthalmic solution of claim 1, wherein the oil component comprises castor oil or a natural oil.

7. The self-emulsifying ophthalmic solution of claim 1, wherein the surfactant component is selected from the group consisting of a compound having at least one ether formed from at least about 1 to 100 ethylene oxide units and at least one fatty alcohol chain having from at least about 12 to 22 carbon atoms; a compound having at least one ester formed from at least about 1 to 100 ethylene oxide units and at least one fatty acid chain having from at least about 12 to 22 carbon atoms; a compound having at least one ether, ester or amide formed from at least about 1 to 100 ethylene oxide units and at least one vitamin or vitamin derivative; and combinations thereof consisting of no more than two surfactants.
8. The self-emulsifying ophthalmic solution of claim 1, wherein the surfactant component consists of one surfactant which is Lumulse GRH-40.
9. The self-emulsifying ophthalmic solution of claim 1, wherein the surfactant component consists of one surfactant which is TGPS.
10. The self-emulsifying ophthalmic solution of claim 1, wherein the oil globules have an average size of less than 0.25 micron.
11. The self-emulsifying ophthalmic solution of claim 1, wherein the oil globules have an average size of less than 0.15 micron.
12. An ophthalmic composition comprising the self-emulsifying ophthalmic solution of claim 1 and a drug that is therapeutic when administered to the eye.
13. An ophthalmic composition comprising the self-emulsifying ophthalmic solution of claim 8 and a drug that is therapeutic when administered to the eye.
14. The ophthalmic solution of claim 1, which further comprises a cationic antimicrobial selected from the group consisting of poly[dimethylimino-w-butene-1,4-diyl] chloride, alpha-[4-tris(2-hydroxyethyl)ammonium]-dichloride (Polyquatarnium 1®), poly (oxyethyl (dimethyliminio)ethylene dmethyliminio) ethylene dichloride (WSCP®), polyhexamethylene biguanide (PHMB), polyaminopropyl biguanide (PAPB), benzalkonium halides, salts of

alexidine, alexidine-free base, salts of chlorhexidine, hexetidine, alkylamines, alkyl di- and tri-amine, tromethamine (2-amino-2-hydroxymethyl-1, 3 propanediol), hexamethylene biguanides and their polymers, antimicrobial polypeptides, and mixtures thereof.

15. The ophthalmic solution of claim 1, wherein the chlorite preservative component is selected from the group consisting of stabilized chlorine dioxide (SCD), metal chlorites, and mixtures thereof.
16. The ophthalmic solution of claim 1, which is a multipurpose solution for contact lenses.
17. The ophthalmic solution of claim 1, wherein the self-emulsifying composition comprises Lumulse GRH-40 and castor oil.
18. A method of decontaminating a contact lens, comprising soaking said lens in an ophthalmic solution according to claim 1.
19. The method of claim 18, further comprising preparing said ophthalmic solution and increasing an antimicrobial activity of said ophthalmic solution to at least the regimen disinfection standard before soaking said contact lens in said ophthalmic solution.
20. The method of claim 19, wherein the antimicrobial activity is increased by waiting at least one month before soaking said lens in said ophthalmic solution.
21. A method of decontaminating a contact lens, comprising soaking said lens in a self-emulsifying composition capable of being produced by the steps of:
preparing an oil phase comprising a polar oil and a surfactant component that consists essentially of one or two surfactants, wherein the polar oil and the surfactant component in the oil phase are in the liquid state;
preparing an aqueous phase at a temperature that permits self-emulsification;
and
mixing the oil phase and the aqueous phase to form an emulsion, without mechanical homogenization.

22. The method of claim 21, further comprising preparing said composition and increasing an antimicrobial activity of said composition to at least the regimen disinfection standard before soaking said contact lens in said composition.
23. The method of claim 22, wherein the antimicrobial activity is increased by waiting at least one month before soaking said lens in said composition.